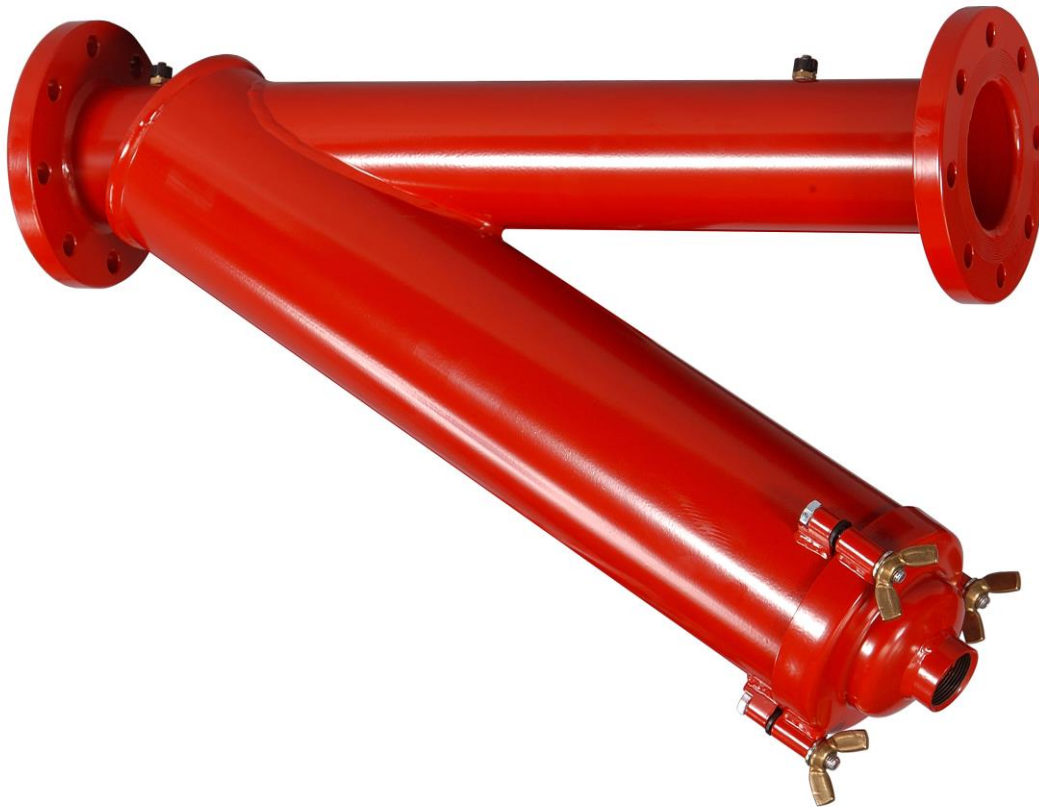


AMIAD WATER SYSTEMS

AMIAD 4" Manual Steel Filter



Installation and Maintenance Instructions

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SAFETY INSTRUCTIONS

General

1. Prior to installation or any treatment given to the filter, read carefully the installation and operation instructions.
2. While treating the filter all conventional safety instructions should be observed in order to avoid danger to the workers, the public or to property in the vicinity.
3. No changes or modification to the equipment are permitted without a written notification given by the manufacturer or by its representative, on the manufacturer behalf.

Installation

1. Install the filter according to the installation instructions detailed in this manual.
2. Make sure to leave enough clearance so as to enable easy access for future treatments and safe maintenance operations.
3. Extra safety devices should be installed on hot water applications to avoid skin burn danger.

Operation and Maintenance

1. Loosening or unscrewing bolts should be done only after the pressure in the filter had been released.
3. Avoid splashing and water leaking so as to minimize slipping danger or damage to the equipment caused by moisture.
4. Always open and close valves slowly and gradually.
5. Remove grease and fat material residues in order to avoid slipping.
6. After treatment has been completed, re-assemble the protection covers.
7. Manual cleaning of filter element using high water pressure or steam should be performed in accordance with the cleaning system instructions and without endangering the operator or his vicinity.
8. Manual cleaning of filter element using acid or other chemical agents should be performed in accordance with the relevant material safety instructions and without endangering the operator or his vicinity.

Use of Lifting Equipment

1. While using lifting equipment, make sure that the filter or the lifted part is chained securely and in a safe manner.
2. Do not leave lifted equipment if there is no necessity. Avoid working below lifted equipment.
3. Wear a safety helmet while using lifting equipment.

PRINCIPLE OF OPERATION

The Amiad series of manual filters remove dirt and debris from water as it flows through a stainless steel filtration element. This consists of a perforated cylinder or a weave-wire screen. Filtration elements are available for various degrees of filtration and are color coded for convenient identification.

Water flows through the filter element from the inside-out so that dirt and debris accumulate on the inside surface. The direction of flow is indicated by an arrow on the filter housing.

The 4" manual steel filter has to be cleaned manually. For optional accessories for automatic or semi-automatic operation please consult your Amiad dealer.

INSTALLATION

Installation Site design recommendations

1. Select a convenient location for the installation of the filter where operation and maintenance will be optimal.
2. Refer to the drawing on page 4 for a typical installation drawing.
3. Isolation valves are needed in order to isolate filter during maintenance or repair.
4. Design the installation according to the correct direction of flow as indicated by an arrow on the filter housing.
5. Take care to leave enough room to remove the filter element for cleaning or service.
6. It is recommended that the filter housing is situated in 45° downwards.

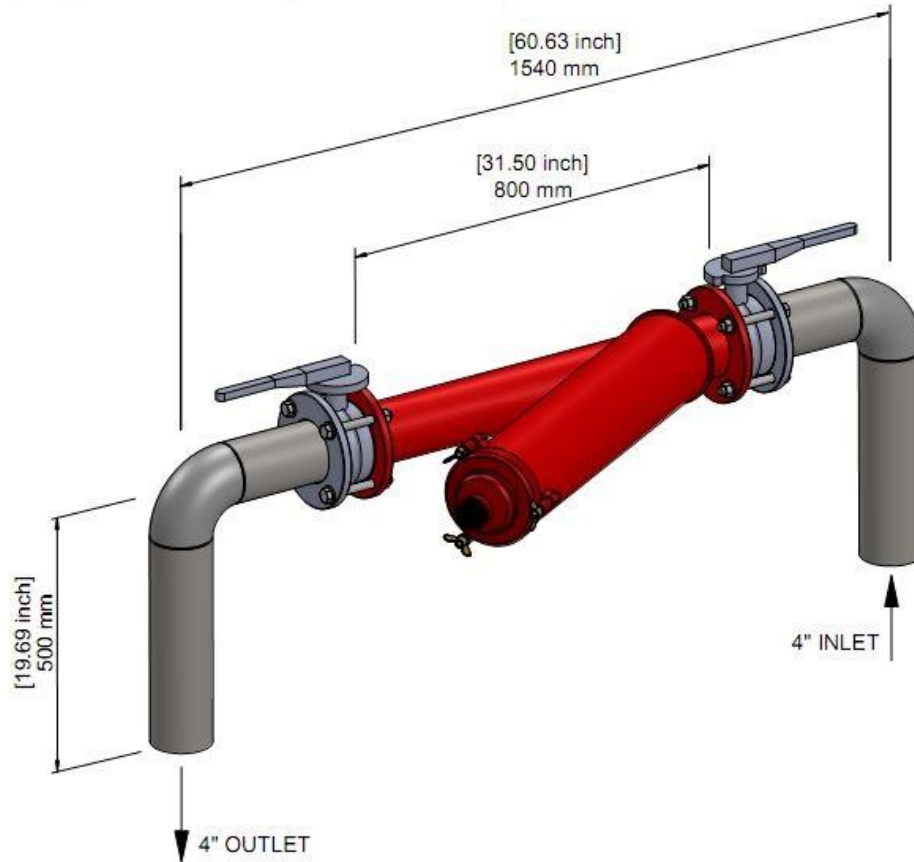
Installation instructions

1. Install the filter on suitable foundations. Make sure to bolt it and anchored it properly. Ensure the direction of flow according to the arrow marked on the filter housing.
2. Prior to installing the filter, flush the main line at the connection point thoroughly in order to remove large objects that may damage the filter's internal mechanism.
3. Arrange for suitable lighting at the area of the filter to enable good visibility and safe maintenance.
4. Arrange suitable platforms and safety barriers to enable easy access to the filter without climbing on pipes and other equipment.

IMPORTANT!!

The customer is required to prevent static back pressure at the filter's outlet port and to ensure that there will be no reverse flow through the filter. It is recommended to install a non-return valve at the outlet of the filter.

TYPICAL INSTALLATION



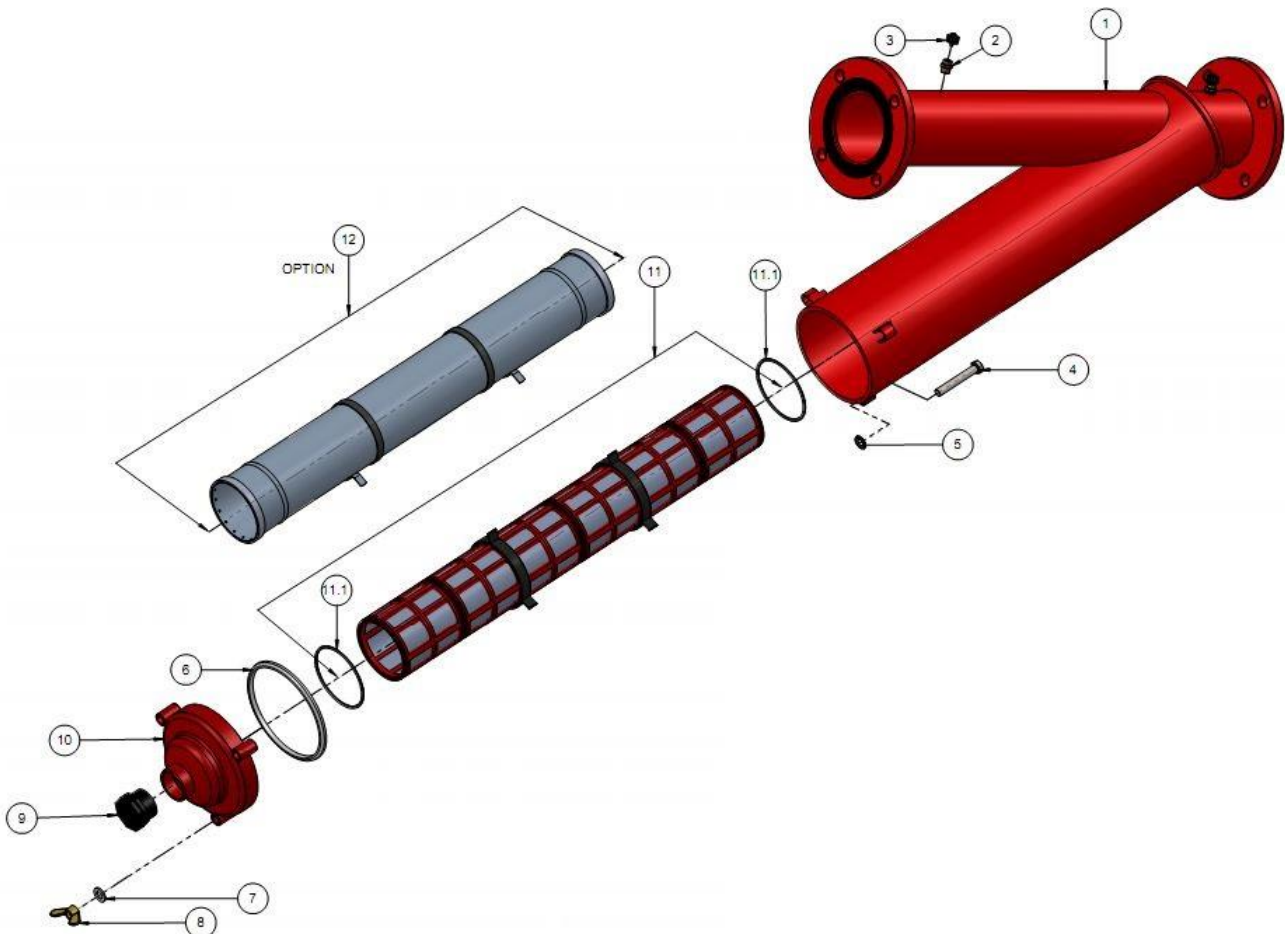
CLEANING THE FILTER

1. Clean the filter element (as described below) when the pressure drop between the pressure check-points exceeds 0.7 – 1.0 bar (10 – 15 psi), or when the downstream pressure or the flow become unacceptably low. Pressure drop can be measured by means of permanently mounted pressure gauges or by a pressure gauge fitted with an Amiad pressure check needle.
2. Close the inlet valve. If an outlet valve exists, close it as well, to prevent backflow.
3. Open the valve in the filter lid to release pressure. **WARNING! DO NOT LOOSEN THE FILTER LID BOLTS UNTIL PRESSURE HAS BEEN RELEASED.**
4. Remove the lid's nuts, washers and bolts and set aside.
5. Remove the lid and inspect its seal. Rinse away any dirt and replace the seal if necessary. New seals may be glued to place using contact cement or a cyano-acrylate (super glue) adhesive.
6. Remove the filter element and clean it by spraying a hard stream of water on its outside surface. This flushes the accumulated dirt off the inside surface. Stubborn dirt may be removed using a light to medium stiffness brush (do not use a wire brush).
7. Check the filter element for damage and ensure that the seals are properly seated and in good condition. Replace seals if necessary (see picture below).
8. Install the filter element in the housing. Ensure that the lid seal is properly seated and in good condition. Install the lid using the bolts, washers and nuts. Tighten the nuts in alternating pairs.
9. Turn the water back on and correct any leaks that may occur.

PARTS SCHEDULE

No.	CAT. No.	Description	Qty	Material
1	710105-000143	METAL HOUSING 4"C IN-LINE ISO16 PKPK 3002 ST.37-2 POLYESTER	1	ST.37-2
1	710105-000142	METAL HOUSING 4"C IN-LINE ASA150 PKPK 3002 ST.37-2 POLYESTER	1	ST.37-2
1	710105-000141	METAL HOUSING 4"C IN-LINE BSTD PKPK 3002 ST.37-2 POLYESTER	1	ST.37-2
2	710103-000591	NIPPLE 1/4" 2" METAL BRASS BSPT	2	Brass
3	700190-001305	PRESSURE CHECK POINT (PLASTIC) W/O NIPPLE	2	Various
4	760101-000322	HEX BOLT PARTIAL THRD M12 80MM C/ST DIN931 Z. PLATED	3	Zinc Plated
5	710101-000632	2-4"METAL RING F/SCREW M12 PP BLACK	3	PP
6	770104-000083	SHAPED SEAL NBR 70 SHORE SERVICE PORT SAF-4500	1	NBR
7	760103-000077	FLAT WASHER M12 DIN125 C/ST ZINC PLATED	3	Zinc Plated
8	760102-000113	WING NUT M12 BRASS DIN315	3	Brass
9	780101-000948	PLUG 1 1/2" BSP M PP PLASSON	1	PP
10	710105-000057	METAL LID 2" PKPK 3002 ST.37-2 POLYESTER	1	ST.37-2
11	700101-000473	MOLDED WEAVEWIRE SCREEN S/ST316L 2175SQ.CM 130MIC 4" METAL	1	Various
11.1	770102-000130	PARKER O-RING 2-242 NBR 70 SHORE NO FLASH DW	2	NBR
12	700101-000466	PERFORATED SCREEN S/ST316L 2175SQ.CM 2500MIC 4" METAL	1	Various

PARTS DRAWING



Amiad Limited Warranty

This certificate applies to Amiad Products purchased by You from Amiad or an Amiad authorized Distributor (“**Distributor**”). This limited warranty extends only to the original purchaser, and is not transferable to anyone who subsequently purchases, leases, or otherwise obtains the Product from the original purchaser.

1. Amiad hereby warrants that the Products are and will be free from defects in material and workmanship under normal use and service. Amiad warrants that it will correct manufacturing defects in the Products, in accordance with the conditions set out in this warranty.
2. This warranty is enforceable for a period of 12 months after the date Bill of Lading or equivalent (the “**Warranty Period**”).
3. In the event that during the Warranty Period the Distributor discovers a defect in material and/or workmanship in any Product or part (the “**Defective Product**”), it shall submit a written complaint to Amiad using Amiad's standard customer complaint form. For the receipt of the customer complaint form, the submission of the complaint or any questions please contact your customer service representative.
4. Upon written demand by Amiad the Distributor shall return the Defective Products – or a sample thereof – to Amiad, at Amiad's cost. If the customer ships any such Product, Amiad suggests the customer package it securely and insure it for value, as Amiad assumes no liability for any loss or damage occurring during shipment. Provided however that in the event Amiad determines that the warranty does not apply to such Product, Distributor shall promptly reimburse Amiad for such cost (including freight and customs). Any returned Product or part must be accompanied by the warranty certificate and the purchase invoice. It is clarified that the Distributor may not return the Defective Product unless such return was coordinate and approved by Amiad in advance.
5. Amiad's obligation under this warranty shall be limited to, at its option, the repair or exchange, free of charge, of the Product or any part which may prove defective under normal use and service during the Warranty Period. The provision of a repaired or replacement Product during the Warranty Period will result in an extension of the Warranty Period by an additional period of 12 months, provided that the total accumulated Warranty Period shall in any event be no more than 18 months from the original Bill of Lading.
6. This warranty is valid on the condition that the Products are installed according to Amiad's instructions as expressed in Amiad's instruction manuals and according to the technical limitations as stipulated in Amiad's literature or as stated by a representative of Amiad.
7. This warranty will not apply to damaged or defective Products resulting from or related to:
 - (i) Fire, flood, power surges or failures or any other catastrophe/and or unforeseen occurrence, such as but not limited to those for which the customers are customarily insured;
 - (ii) Fault, abuse or negligence of the customer;
 - (iii) Customer's responsibilities, including the failure of the intake water to meet the agreed standards, as set forth in a written document, approved by Amiad or improper storage.
 - (iv) Improper or unauthorized use of the Product or related parts by the customer, including the customer's failure to operate the Product in conformity with the recommendations and instructions of Amiad, as set forth in Amiad's manuals and other written materials, the operation of the Product other than by a trained and qualified operator, or improper installation of the Product by a third party not authorized by Amiad;
 - (v) Performance by the customer of maintenance and other services other than by a trained and qualified advanced operator, or other than in conformity with the recommendations and instructions of Amiad, or other than in accordance with procedures defined in the literature supplied for Products;
 - (vi) Any alteration, modification foreign attachment to or repair of the Products, other than by Amiad or its authorized technical representatives.
8. In no event shall Amiad be liable to the customer or any third party for any damages, including indirect, special, exemplary, punitive or consequential damages, or lost profits arising out of or in connection with this warranty, or arising out of or in connection with the Product's performance or failure to perform, even if it has been advised of the possibility of such damages.
9. Amiad will be excused for failure to perform or for delay in performance hereunder if such failure or delay is due to causes beyond its reasonable control or force majeure preventing or hindering performance.
10. The limited warranty set forth herein is the only warranty given by Amiad and is provided in lieu of any other warranties created by any documentation, packaging or otherwise.
11. Amiad makes no warranty whatsoever in respect of accessories or parts not supplied by Amiad. In the event that Amiad is required to correct a defective Product or product not covered by this warranty, it will do so solely in consideration for additional fees.